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Sequence Listing was accepted.

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Reviewer: Durreshwar Anjum

Timestamp: Mon Nov 05 08:26:02 EST 2007

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Application No: 10516766 Version No: 2.0

Input Set:

Output Set:

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Finished: 2007-10-22 09:08:20.503  
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 499 ms  
Total Warnings: 8  
Total Errors: 0  
No. of SeqIDs Defined: 41  
Actual SeqID Count: 41

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# SEQUENCE LISTING

<110> Pastan, Ira H.  
 Nagata, Satoshi  
 Onda, Masanori  
 Numata, Yoshito  
 Santora, Kenneth  
 Beers, Richard  
 Kreitman, Robert  
 Sinha, Abhishek  
 The Government of the United States of America  
 as represented by The Secretary of the  
 Department of Health and Human Services

<120> Anti-CD30 Stalk and Anti-CD30 Antibodies Suitable for  
 Use in Immunotoxins

<130> 015280-464200US

<140> 10516766  
 <141> 2004-12-03

<150> US 60/387,293  
 <151> 2002-06-07

<150> US 60/411,032  
 <151> 2002-09-16

<150> WO PCT/US03/18373  
 <151> 2003-06-09

<160> 41

<170> PatentIn Ver. 2.1

<210> 1  
 <211> 595  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> CD 30 antigen, tumor necrosis factor receptor  
 superfamily, member 8, isoform 1 precursor  
 (TNFRSF8), Ki-1 antigen, cytokine receptor CD30,  
 lymphocyte activation antigen CD30, CD30L receptor

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 Met Arg Val Leu Leu Ala Ala Leu Gly Leu Leu Phe Leu Gly Ala Leu  
 1 5 10 15  
 Arg Ala Phe Pro Gln Asp Arg Pro Phe Glu Asp Thr Cys His Gly Asn  
 20 25 30  
 Pro Ser His Tyr Tyr Asp Lys Ala Val Arg Arg Cys Cys Tyr Arg Cys  
 35 40 45

Pro Met Gly Leu Phe Pro Thr Gln Gln Cys Pro Gln Arg Pro Thr Asp  
 50 55 60

Cys Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Asp Arg  
 65 70 75 80

Cys Thr Ala Cys Val Thr Cys Ser Arg Asp Asp Leu Val Glu Lys Thr  
 85 90 95

Pro Cys Ala Trp Asn Ser Ser Arg Val Cys Glu Cys Arg Pro Gly Met  
 100 105 110

Phe Cys Ser Thr Ser Ala Val Asn Ser Cys Ala Arg Cys Phe Phe His  
 115 120 125

Ser Val Cys Pro Ala Gly Met Ile Val Lys Phe Pro Gly Thr Ala Gln  
 130 135 140

Lys Asn Thr Val Cys Glu Pro Ala Ser Pro Gly Val Ser Pro Ala Cys  
 145 150 155 160

Ala Ser Pro Glu Asn Cys Lys Glu Pro Ser Ser Gly Thr Ile Pro Gln  
 165 170 175

Ala Lys Pro Thr Pro Val Ser Pro Ala Thr Ser Ser Ala Ser Thr Met  
 180 185 190

Pro Val Arg Gly Gly Thr Arg Leu Ala Gln Glu Ala Ala Ser Lys Leu  
 195 200 205

Thr Arg Ala Pro Asp Ser Pro Ser Ser Val Gly Arg Pro Ser Ser Asp  
 210 215 220

Pro Gly Leu Ser Pro Thr Gln Pro Cys Pro Glu Gly Ser Gly Asp Cys  
 225 230 235 240

Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Gly Arg Cys  
 245 250 255

Thr Ala Cys Val Ser Cys Ser Arg Asp Asp Leu Val Glu Lys Thr Pro  
 260 265 270

Cys Ala Trp Asn Ser Ser Arg Thr Cys Glu Cys Arg Pro Gly Met Ile  
 275 280 285

Cys Ala Thr Ser Ala Thr Asn Ser Cys Ala Arg Cys Val Pro Tyr Pro  
 290 295 300

Ile Cys Ala Ala Glu Thr Val Thr Lys Pro Gln Asp Met Ala Glu Lys  
 305 310 315 320

Asp Thr Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys Asn  
 325 330 335

Pro Thr Pro Glu Asn Gly Glu Ala Pro Ala Ser Thr Ser Pro Thr Gln  
 340 345 350

Ser Leu Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro Thr  
 355 360 365  
 Ser Ala Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp Ala  
 370 375 380  
 Gly Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val Gly  
 385 390 395 400  
 Ser Ser Ala Phe Leu Leu Cys His Arg Arg Ala Cys Arg Lys Arg Ile  
 405 410 415  
 Arg Gln Lys Leu His Leu Cys Tyr Pro Val Gln Thr Ser Gln Pro Lys  
 420 425 430  
 Leu Glu Leu Val Asp Ser Arg Pro Arg Arg Ser Ser Thr Gln Leu Arg  
 435 440 445  
 Ser Gly Ala Ser Val Thr Glu Pro Val Ala Glu Glu Arg Gly Leu Met  
 450 455 460  
 Ser Gln Pro Leu Met Glu Thr Cys His Ser Val Gly Ala Ala Tyr Leu  
 465 470 475 480  
 Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser  
 485 490 495  
 Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn Asn  
 500 505 510  
 Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val Gly  
 515 520 525  
 Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala  
 530 535 540  
 Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His Tyr  
 545 550 555 560  
 Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val Met  
 565 570 575  
 Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala  
 580 585 590  
 Ser Gly Lys  
 595

<210> 2

<211> 118

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30  
 monoclonal antibody (MAb) T6

<400> 2

Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Thr Pro Ser Gln  
1 5 10 15

Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Lys Tyr  
20 25 30

Ser Ile His Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Leu  
35 40 45

Gly Met Ile Trp Gly Val Glu Asn Thr Asp Tyr Asn Ser Ala Leu Lys  
50 55 60

Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Leu  
65 70 75 80

Lys Met Asn Ser Leu Gln Ser Asp Asp Thr Ala Met Tyr Tyr Cys Ala  
85 90 95

Arg Lys Asp Leu Gly Leu Tyr Gly Met Asn Tyr Trp Gly Gln Gly Ile  
100 105 110

Ser Val Thr Val Ser Ala  
115

<210> 3

<211> 120

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30  
monoclonal antibody (MAb) T7

<400> 3

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser  
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr  
20 25 30

Trp Met Asn Trp Met Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Gln Ile Tyr Pro Gly Asp Asp Asp Thr Asn Tyr Asn Gly Lys Phe  
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys  
85 90 95

Ala Arg Arg Glu Thr Gly Arg Gly Ala Trp Phe Thr Tyr Trp Gly Gln  
100 105 110

Gly Thr Leu Val Thr Val Ser Ala  
115 120

<210> 4  
<211> 120  
<212> PRT  
<213> Mus musculus

<220>  
<223> heavy chain variable region (VH) of anti-CD30  
monoclonal antibody (MAb) T13

<400> 4  
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr  
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Tyr Ile Asn Pro Ser Thr Gly Tyr Thr Asp Tyr Asn Glu Lys Phe  
50 55 60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Val Arg Arg Gly Ser Tyr Asp Gly Asn Pro Phe Ala Tyr Trp Gly Gln  
100 105 110

Gly Thr Leu Val Ser Val Ser Ala  
115 120

<210> 5  
<211> 117  
<212> PRT  
<213> Mus musculus

<220>  
<223> heavy chain variable region (VH) of anti-CD30  
monoclonal antibody (MAb) T14

<400> 5  
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
1 5 10 15

Ser Leu Lys Leu Ser Cys Gly Val Ser Gly Phe Thr Phe Ser Asp Tyr  
20 25 30

Tyr Met Tyr Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val

35

40

45

Ala Ser Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Ser Asp Ser Val  
50 55 60

Lys Gly Arg Leu Thr Ile Ser Arg Asp Asn Thr Lys Asn Asn Leu Tyr  
65 70 75 80

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Val Arg Gly Pro Gly Gly Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr  
100 105 110

Leu Thr Val Ser Ser  
115

&lt;210&gt; 6

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;220&gt;

<223> heavy chain variable region (VH) of anti-CD30  
monoclonal antibody (MAb) T24

&lt;400&gt; 6

Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Arg Pro Gly Ala  
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Ser Tyr  
20 25 30

Trp Ile Asp Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Ser Asn Ala Tyr Thr Asn Tyr Asn Gln Lys Phe  
50 55 60

Lys Asp Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Pro Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Thr Ser Val Leu Asp Tyr Phe Tyr Ala Met Asp Tyr Trp Gly Gln Gly  
100 105 110

Thr Ser Val Thr Val Ser Ser  
115

&lt;210&gt; 7

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Mus musculus



<220>

<223> heavy chain variable region (VH) of anti-CD30  
monoclonal antibody (MAb) T25

<400> 7

Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln  
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Asn Thr Ser  
20 25 30

Gly Val Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu  
35 40 45

Trp Leu Ala His Ile Trp Trp Asp Asp Asp Glu Arg Tyr Asn Pro Val  
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val  
65 70 75 80

Phe Leu Lys Ile Ala Asn Val Asp Thr Ala Asp Ser Ala Thr Tyr Tyr  
85 90 95

Cys Val Arg Ser Met Val Ala Trp Phe Pro Tyr Trp Gly Arg Gly Thr  
100 105 110

Leu Val Thr Val Ser Ala  
115

<210> 8

<211> 125

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30  
monoclonal antibody (MAb) control HeFi-I

<400> 8

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Tyr  
20 25 30

Tyr Met Asn Trp Val Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu  
35 40 45

Gly Phe Ile Arg Asn Lys Ala Asn Gly Tyr Thr Thr Glu Phe Ser Ala  
50 55 60

Ser Val Met Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Gln Ser Ile  
65 70 75 80

Leu Tyr Leu Gln Met Asn Thr Leu Arg Ala Glu Asp Ser Ala Thr Tyr

85

90

95

Tyr Cys Ala Arg Asp Pro Pro Tyr Gly Asn Pro His Tyr Tyr Ala Met  
 100 105 110

Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser  
 115 120 125

&lt;210&gt; 9

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;220&gt;

<223> heavy chain variable region (VH) of anti-CD30  
 monoclonal antibody (MAb) CL2

&lt;400&gt; 9

Glu Val Gln Leu Lys Gln Ser Gly Thr Glu Leu Val Lys Pro Gly Ala  
 1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
 20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45

Gly Asn Ile Asn Pro Ser Asn Gly Gly Thr Asn Tyr Asn Glu Lys Phe  
 50 55 60

Lys Ser Lys Ala Thr Leu Thr Ile Asp Lys Ser Ser Ser Thr Ala Tyr  
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
 85 90 95

Ala Arg Arg Thr Glu Thr Ala Gln Ala Ser Pro Phe Ala Tyr Trp Gly  
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser  
 115 120

&lt;210&gt; 10

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;220&gt;

<223> heavy chain variable region (VH) of anti-CD30  
 monoclonal antibody (MAb) Ki-4

&lt;400&gt; 10

Gln Val Lys Leu Gln Glu Ser Gly Thr Glu Leu Ala Lys Pro Gly Ala  
 1 5 10 15

Ala Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr  
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Tyr Ile Asn Pro Asn Thr Ala Tyr Thr Asp Tyr Asn Gln Lys Phe  
50 55 60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Ala Lys Lys Thr Thr Gln Thr Thr Trp Gly Phe Pro Phe Trp Gly Gln  
100 105 110

Gly Thr Leu Val Thr Val Ser Ser  
115 120

<210> 11

<211> 120

<212> PRT

<213> Mus musculus

<220>

<223> heavy chain variable region (VH) of anti-CD30  
monoclonal antibody (MAb) T420

<400> 11

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Asp Leu Glu Trp Ile  
35 40 45

Gly Tyr Ile Asn Pro Ser Thr Asp Tyr Thr Asp Tyr Asn Gln Lys Phe  
50 55 60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Ala Thr Arg His Tyr Gly Ser Ser Tyr Gly Phe Ala Tyr Trp Gly Gln  
100 105 110

Gly Thr Leu Val Thr Val Ser Ala  
115 120

<210> 12  
<211> 119  
<212> PRT